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U. S. DEPARTMENT OF AGRICULTURE.

OFFICE OF EXPERIMENT STATIONS—BULLETIN 250.

A. C. TRUE, Director.

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ARKANSAS STATE AGRICULTURAL SCHOOLS.

BY

C. H. LANE,
Assistant in Agricultural Education,
Office of Experiment Stations.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Office of Experiment Stations,
Washington, D. C., March 1, 1912.

Sir: I have the honor to transmit herewith a report on the Arkansas State Agricultural Schools, prepared under the direction of D. J. Crosby, specialist in agricultural education of this office, by C. H. Lane, assistant in agricultural education. In view of the increasing interest in agricultural education and the desire of school officers and others for concrete information as to the origin, equipment, organization, and work of special agricultural schools, this report on a system of schools established by the State without reference to existing political divisions is deemed worthy of publication as a bulletin of this office.

Respectfully,

A. C. True,
Director.

Hon. James Wilson,
Secretary of Agriculture.

ADDITIONAL COPIES of this publication may be procured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10 cents per copy

CONTENTS.

Page.

Introduction........ 5

Agricultural schools in Arkansas........ 6

First District Agricultural School, Jonesboro........ 7

Course for boys........ 9

Course for girls........ 10

Second District Agricultural School, Russellville........ 11

Course of study........ 12

Course in detail........ 13

Third District Agricultural School, Magnolia........ 14

Course of study........ 15

Fourth District Agricultural School, Monticello........ 16

Course No. 1, for boys and girls........ 18

Course No. 2, agricultural course for boys........ 18

Course No. 2, home economics for girls........ 19

Legislation........ 19

ILLUSTRATIONS.

PLATES.

Page.
Plate I. Fig. 1.—Main building, First District Agricultural School. Fig. 2.—Girls' dormitory, First District Agricultural School.......... 16
II. Main building and dormitories, Second District Agricultural School.. 16
III. Fig. 1.—Cornfield, six weeks after planting, Second District Agricultural School. Fig. 2.—Pure-bred Jerseys and Herefords, Second District Agricultural School............................ 16
IV. Fig. 1.—Class in horticulture, Third District Agricultural School. Fig. 2.—Home economics laboratory, Third District Agricultural School.. 16
V. Fig. 1.—Main building, Fourth District Agricultural School. Fig. 2.—Road grader, Fourth District Agricultural School............ 16

TEXT FIGURE.

Fig. 1. Map showing location of State agricultural schools in Arkansas........ 6

ARKANSAS STATE AGRICULTURAL SCHOOLS.

INTRODUCTION.

Special agricultural schools apart from the State colleges of agriculture are now maintained, wholly or in part by State funds, in at least 17 States. These schools vary greatly in work, equipment, income, and size of district served but have one point in common by which they may be distinguished from public high schools which maintain courses in agriculture, viz, that while the latter offer general or college preparatory secondary courses, the special agricultural schools confine their work to technical courses in agriculture, mechanic arts, and home economics, supplemented by such work in mathematics, English, and the natural sciences as is needed to round out the technical work into a fairly good vocational course for young men and young women who do not intend to pursue a college course.

The area served by the agricultural schools in the different States varies from a single county to a large indeterminate area comprising a third, a half, or a whole State. Maryland, Michigan, Mississippi, North Carolina, North Dakota, and Wisconsin have adopted the county unit; Alabama and Georgia the congressional district; Oklahoma, the supreme court judicial district, while California, Colorado, Massachusetts, Minnesota, Nebraska, New York, Pennsylvania, and Vermont have agricultural schools serving large, indeterminate areas.

Wisconsin was the first State to establish county agricultural schools. In 1911 that State had 5 such schools in operation, Maryland 2, Michigan 2, Mississippi 23, and North Carolina 4. Alabama was the first to have a complete system of congressional district agricultural schools, 9 in number; Georgia has 11. Oklahoma has 5 judicial district agricultural schools and one special district school in the "Panhandle." Of the indeterminate district schools California has 2, Colorado 2, Minnesota 2, New York 3, and Massachusetts, Nebraska, Pennsylvania, and Vermont 1 each. The annual cost of these schools for maintenance alone is about three-quarters of a million dollars.

AGRICULTURAL SCHOOLS IN ARKANSAS.

Arkansas was the first State to be divided into four nearly equal agricultural school districts designated numerically and containing from 17 to 20 counties in each district. The arrangement of these districts is shown on the map (fig. 1).

The question of establishing agricultural schools in Arkansas is said to have originated at a meeting of the Washington County Farmers' Union in 1906 by the passing of a resolution indorsing the establishment by the legislature of special agricultural schools. The first action taken by the legislature was in 1907 when a bill for the establishment of one agricultural school was passed but was vetoed by the governor.

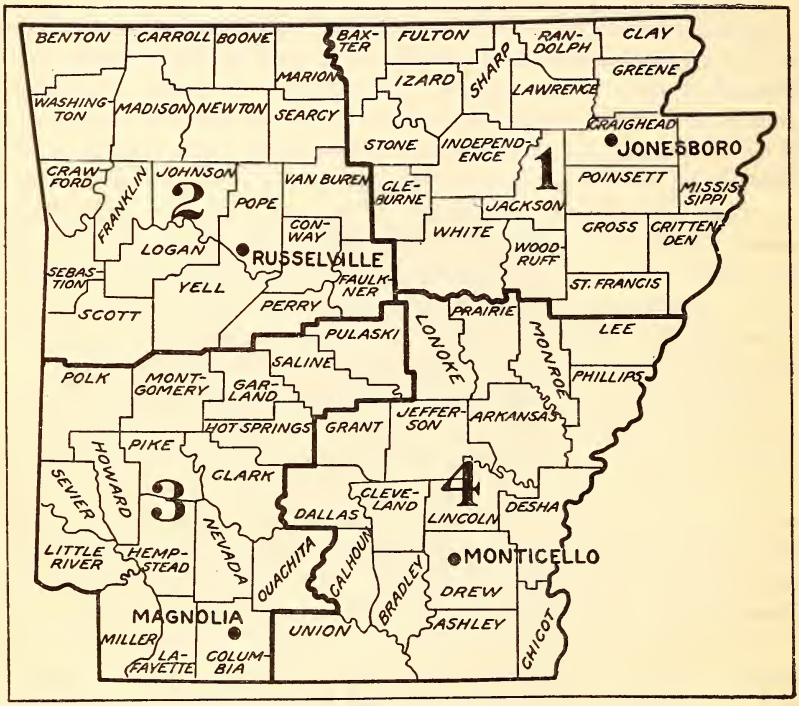


FIG. 1.—Map showing location of State agricultural schools in Arkansas.

In 1909 the question of establishing agricultural schools came up again in the legislature and this time a bill dividing the State into four districts and providing for the establishment in each of these districts of an institution, to be known as "The State Agricultural School," was passed and signed by the governor. This bill carried an initial appropriation of $160,000, which was divided equally among the four districts to supplement local contributions for land, buildings, equipment, and the maintenance for two years of the schools to be established. It also provided that "after the first buildings are erected and ready for temporary use all work in, on, and about said school, whether it be farming, building, care of stock, or whatever kind of work, shall be performed by students of said school."

Each agricultural school in Arkansas is controlled by a board of five trustees "who shall be intelligent farmers," appointed by the governor for a term of 10 years. They may fix the rules of admission so as to equalize the attendance among the counties. They may limit the number admitted to suit the capacity of the school but shall not charge tuition. Students must be 15 years of age.

The course of study is prescribed in each case by the board of trustees but must include instruction in agriculture and horticulture, and not later than one year after the opening of each school "there shall be established in connection therewith a textile school, in which shall be taught the art of cotton manufacturing and other textile manufacturing should the board of trustees deem it expedient."

Nothing is said in the law concerning the teaching of farm mechanics or home economics, but it is a noteworthy fact that the trustees in each district have made provision for both of these subjects as well as for such work in mathematics, English, and other general subjects as seemed desirable in order to prevent the education of the students along too narrow lines and to remedy deficiencies in general culture too often apparent in the students enrolling in such schools.

With the inauguration of these schools Arkansas has in operation a definite system of agricultural education beginning with the common schools and extending through a 4-year college course.

FIRST DISTRICT AGRICULTURAL SCHOOL, JONESBORO.

Faculty: V. C. Kays, M. S. A., principal (University of Illinois); W. H. Black, B. S., animal husbandry (Iowa State College of Agriculture); S. H. Ray, B. S. A., dairy husbandry (Texas Agricultural College); F. T. Parks, B. S., C. E., agricultural engineering (Kansas Agricultural College); D. R. Jennings, B. S., M. E., manual training and mathematics (University of Arkansas); Veda R. Walker, B. A., English and history (University of Oklahoma); Henry Ness, B. S. A., biology and horticulture (Iowa State College of Agriculture); Elizabeth Nowell, B. S., domestic economy (University of Missouri); Mary E. Brown, B. S., assistant in domestic economy (University of Missouri); Zenobia Brumbaugh, instructor in art (New York School of Fine Arts); Nira Beck, instructor in preparatory and vocal music (Illinois State Normal University).

The First District Agricultural School, which opened for the first time on October 3, 1910, is located about a mile east of the city of

Jonesboro, along the Jonesboro, Lake City & Eastern, the Frisco, and the Cotton Belt railways, and is close to the eastern edge of what is known as Crowleys Ridge in northern Arkansas.

Three buildings, consisting of the main building and boys' and girls' dormitories, are now in use (Pl. I) while the barns and heating plant are yet to be started, although the plans for their construction are completed. The main building, costing $30,000 and built of pressed brick and trimmed in stone, is 144 feet long, 76 feet wide, and three stories in height. The first floor is occupied by the dairy laboratories and ice plant, refrigerating and sterilizing rooms, a gymnasium 49 by 74 feet, wood and blacksmith shop, baths, toilet, and dressing rooms. Home economics, recitation and laboratory rooms, physics laboratory, offices, bookstore, recitation rooms, and a large library are located on the second floor. The third floor has chemical and biological laboratories at the ends, and between these an auditorum 80 by 50 feet in size.

The dormitories are four stories, or rather three stories and a sub-story, and are constructed of the same material as the main building. The boys' dormitory is 95 by 40 feet in size, containing 22 rooms, besides a large sleeping apartment and many baths and toilets. The basement is at present used for a farm-machinery laboratory. The girls' dormitory, 70 by 40 feet in size, is very similar to the boys' dormitory in construction and contains 18 bedrooms, a large dining room, a laundry, and a kitchen.

The total cost of the two dormitories, exclusive of heating, plumbing, and furnishing, was $25,000. The money to pay for the three buildings described was raised through a State appropriation of $40,000, supplemented by contributions from the people of the vicinity in which the school is located.

There are 462 acres of land in the farm, consisting of both high and low lands, making it suitable for almost all kinds of experimental and demonstration work. Various crops are raised, including truck crops, small fruits, cotton, corn, and such legumes as cowpeas, soy beans, clovers, alfalfa, and some sorghum and rape for feeding purposes. The 300 acres now under cultivation are being worked during the summer months by hired labor. During the school year the students do the major portion of the work, while the opportunity is offered to a limited number of students to remain on the farm during the summer and thereby increase their funds and also gain valuable practical experience.

The farm has a small herd of large-type registered Poland China hogs. The cattle consist of grades and pure-bred Angus, Herefords, and Shorthorns. There are also 10 pure-bred Percheron mares, 2 pure-bred colts, and 1 pure-bred registered stallion. A dairy herd will be purchased in the near future.

In the outline below it will be observed that agriculture is taught in the sixth and seventh grades, thus preparing students for the more extensive study of the subject during the 4-year high school course, in which were enrolled 78 boys and 74 girls during the year.

COURSE FOR BOYS.

Fall.	Winter.	Spring.
	SIXTH GRADE.	
Arithmetic.	Arithmetic.	Arithmetic.
Reading and grammar.	Reading and grammar.	Reading and grammar.
Spelling and geography.	Spelling and geography.	Spelling and Arkansas history.
Agriculture.	Agriculture.	Agriculture.
	SEVENTH GRADE.	
Algebra I.	Algebra I.	Algebra I.
Reading and grammar.	Reading and grammar.	Reading and grammar.
Physical geography.	Physical geography.	Physiology.
Spelling and United States history.	Spelling and United States history.	Spelling and United States history.
Agriculture.	Agriculture.	Agriculture.
	FIRST YEAR.	
English I.	English I.	English I.
Algebra II.	Algebra II.	Algebra II.
Zoology.	Botany.	Botany.
Beef cattle.	Swine and horses.	Dairy cattle and sheep.
Wood shop.	Wood shop.	Blacksmithing.
Music.	Music.	Music.
	SECOND YEAR.	
English II.	English II.	English II.
Geometry.	Geometry.	College algebra or vegetable gardening and bush fruits.
Grain judging.	Orcharding.	
Ancient history or breeding beef cattle.	Ancient history or breeding sheep and horses.	Ancient history or breeding dairy cattle and sheep.
Blacksmithing and drawing.	Drawing.	Soil physics.
		Drawing.
	THIRD YEAR.	
English III.	English III.	English III.
Physics.	Physics.	Physics.
Chemistry.	Chemistry.	Qualitative chemistry.
Farm mechanics.	Dairying.	Advanced dairying or poultry or farm architecture or economic entomology.
Advanced stock judging or trigonometry or bacteriology.	Care and management or surveying.	Care and management or surveying.

FOURTH YEAR.

Fall.	Winter.	Spring.
Agricultural chemistry.	Fertility.	Farm management or agricultural engineering.
Feeding.	Feeding.	Animal breeding.
Civics.	Political economy.	Thesis.
Plant diseases or drainage or soundness.	Power machinery.	Landscape gardening or irrigation or veterinary elements.
	Irrigation or meats.	

Course for Girls.

SIXTH GRADE.

Fall.	Winter.	Spring.
Arithmetic.	Arithmetic.	Arithmetic.
Reading and grammar.	Reading and grammar.	Reading and grammar.
Spelling and geography.	Spelling and geography.	Spelling and geography.
Foods I.	Foods I.	Foods I.

SEVENTH GRADE.

Fall.	Winter.	Spring.
Algebra I.	Algebra I.	Algebra I.
Reading and grammar.	Reading and grammar.	Reading and grammar.
Physical geography.	Physical geography.	Physiology.
Spelling and United States history.	Spelling and United States history.	Spelling and United States history.
Sewing I.	Foods I.	Foods I.

FIRST YEAR.

Fall.	Winter.	Spring.
Sewing I.	Sewing I.	Sewing I.
English I.	English I.	English I.
Algebra II.	Algebra II.	Algebra II.
Zoology.	Botany.	Botany.
Drawing and music.	Drawing.	Drawing.

SECOND YEAR.

Fall.	Winter.	Spring.
Sewing II.	Sewing II.	Millinery.
Textiles.	Laundry.	Laundry.
Geometry.	Geometry.	College algebra or vegetable gardening and bush fruits.
Ancient history.	Ancient history.	English II.
English II.	English II.	Ancient history.

THIRD YEAR.

Fall.	Winter.	Spring.
Foods II.	Foods II.	Foods II.
Dressmaking.	Dressmaking.	Dressmaking.
English III.	English III.	English III.
Physics.	Physics.	Physics.
Chemistry.	Chemistry.	Qualitative chemistry.

FOURTH YEAR.

Fall.	Winter.	Spring.
House sanitation.	House sanitation.	House decoration.
Foods, advanced.	Foods, advanced.	Foods, advanced.
Home administration.	Home administration.	Teaching of domestic science.
Quantitative chemistry.	Invalid cookery.	Thesis.
Civics.	Political economy.	Home nursing.

SECOND DISTRICT AGRICULTURAL SCHOOL, RUSSELLVILLE.

Faculty: George A. Cole, A. M., principal, animal husbandry (Texas Agricultural College); M. B. Oates, B. S. A., agronomy (University of Arkansas); E. H. Shinn, L. I., B. A., principal literary department (University of Arkansas); Elsie and Dolly Ham, domestic economy and assistants in literary department (Kansas State Agricultural College); Alice Williams, domestic economy and assistant in literary department (Keisters College).

The school was opened in the fall of 1910 at Russellville, which is a city of 5,000 inhabitants, on the Iron Mountain & Southern Railroad, about halfway between Fort Smith and Little Rock. Health conditions are excellent.

The six buildings (Pl. II) making up the school group are built of brick and stone. The main building is 125 feet long by 75 feet wide, three stories in height, besides the attic story, which has large dormer windows and can be fitted up for an indoor gymnasium. On the first floor rooms are provided for cooking, sewing, laundry, manual training, soil laboratory, fuel, and boilers. A complete and modern sanitary system is installed consisting of lavatories, bathtubs, shower baths, toilets, and drinking fountains. The second floor has fine large classrooms, besides the president's office and the library. The auditorium is on the third floor and is 72 feet long by 32 feet wide.

There are two dormitories for boys and two for girls. These will accommodate 35 students each. They are two stories high and contain parlors, reception rooms, bathrooms, toilets, and lavatories.

A large brick and stone dining hall is conveniently arranged, and has a seating capacity of 200. The dining hall is conducted on a cooperative plan. All fruits, vegetables, and meat-producing animals raised on the farm are furnished to the dining hall free of charge to the students. The only cost of board is the actual cost of groceries. Upon this plan board amounts to about $8 per month. The faculty conducts this department and enjoys the same service.

All buildings are steam heated, and the grounds are lighted by electricity.

There are 200 acres of tillable land in the farm connected with the school. The crops grown the first year and the area devoted to each are as follows: 47 acres of corn (Pl. III, fig. 1), 30 of sorghum and kafir corn, 2 of melons, 10 of peas, and about 8 of rape for hog pasture. About 2 acres each of sweet potatoes and tomatoes were grown for table use. The orchard consists of 1,000 Elberta peach trees. The remainder of the farm was rented when the school was located and was not available until January, 1911.

The plan for the coming year is to divide the farm into acre plats which are to be put in a rotation consisting of corn, cotton, and cowpeas. Each student will be assigned a plat and be held responsible for the rotation as outlined. This will be a cooperative plan—the school furnishing the seed, tools, teams, fertilizers, etc., and the boy the labor. He will make the crop and receive one-half of the proceeds.

The farm machinery consists of the most modern types of plows, harrows, and other implements, which are of such a variety as thoroughly to instruct students relative to the adaptability of the several kinds of tools to different conditions.

The shops are provided with several forges, anvils, workbenches, and all necessary tools for the accomplishment of all blacksmithing and woodwork pertaining to the farm.

In addition to a small dairy building for the manufacture of dairy products, provision has been made for all necessary barn and shed room to carry on the farm operations. By means of the pure-bred live stock on the farm (Pl. III, fig. 2), the students are afforded an opportunity to learn the advantages of live-stock farming in general and the production of pure-bred animals in particular.

This is the only one of the four schools in which the first of March marks the opening and the last of December the closing dates for the regular session. January and February are to be devoted to short-course and farmers' institute work.

The law requires that the student must be at least 15 years old. A student can complete the course in four years "if he can enter the fifth-grade high school work." Tuition is free.

All students are required to work in the fields, shops, barns, laboratories, kitchen, laundry, etc., and receive from 10 to 15 cents an hour, depending upon the nature of the work and the manner in which it is performed, for each hour of work performed above the practice requirements.

The course of instruction is the same for boys and girls throughout the first year, except in the case of practice work. Courses are also offered in art, music, expression, and vocal culture, for which a special charge is made. The four-year course is as follows:

COURSE OF STUDY.

FIRST YEAR.

English	4
Mathematics	3
United States history	3
Physiology	2
Agriculture	3
Practice work	17

SECOND YEAR.

English	3
Mathematics	3
Arkansas history	2
Animal husbandry	3
Agronomy	3
Physical geography	2
Practice work	17

THIRD YEAR.

English	3
Geometry	3
Algebra	2
Agronomy	3
Farm accounts	2
Civics	2
Practice work	17

FOURTH YEAR.

Chemistry	3
Physics	3
Horticulture	3
Surveying	2
Animal husbandry (dairying)	3
English	1
Practice work	17

The length of recitation is 45 minutes. The number opposite the study denotes the number of recitation periods required per week. In the course designed for girls, home economics will be substituted for agriculture, except that all girls will be required to study horticulture, landscape gardening, and dairying in the junior and senior years.

THE COURSE IN DETAIL.

FIRST YEAR.

Agronomy.—Elementary studies of plants and animals and their relations to the farm; elementary studies of soils, their cultivation, drainage, etc.

Home economics.—Model work, drafting and making undergarments, care and use of machine; hygiene, elementary cooking.

English.—Elementary course in grammar—special emphasis will be placed upon the analysis of sentences; parts of speech will be studied; students will be drilled upon the correct use of verbs; lessons in elementary composition will be given weekly.

Arithmetic.—Training in business arithmetic; a thorough course in percentage and interest; practical problems will be given special emphasis.

History.—A thorough course will be given in United States history.

Physiology.—Lectures on the practical value of physiology and hygiene.

SECOND YEAR.

Animal husbandry.—A study of the development and history of breeds of live stock, including horses, cattle, sheep, swine, and poultry; study of breed type; feeding live stock; balanced ration and study of composition and feeds.

Agronomy.—Soils, their classification, drainage, cultivation, and fertilization of each class to produce the best results; also crops best adapted to each class.

Home economics.—Cutting and making dresses, advanced drafting, cooking.

English.—A course designed to give the student a better knowledge of the analysis of sentences; special emphasis placed upon the analysis and the conjugation of verbs· composition required, one recitation each week.

Mathematics.—Advanced work in mathematics; elementary algebra required.

Arkansas history.—A course designed to bring the student into close relation with the events of our State; such facts emphasized as relate to the development of the State. Rural economics will be taught in connection with this course.

Physical geography.—A thorough course will be offered in this study.

THIRD YEAR.

Animal husbandry.—Principles of animal breeding, stock judging.

Agronomy.—Field crops, selection, care, judging, and storing feed; methods of planting, cultivation, and rotation of crops.

Farm accounts.—Bookkeeping as related to the needs of the farmer; students will be required to keep records as to cost of production, sales, etc.

Home economics.—Advanced dressmaking, advanced cooking, and serving meals.

English.—Principles of rhetoric will be required; English and American literature will be studied in connection with the text; compositions on topics relating to agriculture will constitute a part of this course.

Plane geometry and algebra.—Students will be given review of factoring. This course will be equivalent to the completion of Milne's High School Algebra.

Civics.—A thorough course in civil government, supplemented by the study of the Constitution of the United States.

FOURTH YEAR.

Animal husbandry.—Complete course in dairying, including farm dairying and co-operative creamery management.

Agronomy.—Farm machinery, outbuildings, etc.; farm management.

Horticulture.—A course designed to give the student a thorough knowledge of the elementary principles of fruit culture, landscape and truck gardening.

Chemistry.—A study of the composition and digestibility of foods; also chemistry as related to farming and manufacturing.

Physics.—Taught in its relation to soils and farm operations.

Surveying.—This subject will take the place of algebra in the second term of the senior year, and is designed to give the student a practical knowledge of plane surveying.

Home economics.—Tailoring, millinery, and art needlework; home nursing; home management; dietectics; invalid cookery.

English.—A course designed to develop the student in composition work; themes read and discussed in the classroom; special emphasis given to subjects relating to farm problems and agriculture.

Algebra.—An advanced course in the first term, and plane surveying taught in the second term.

THIRD DISTRICT AGRICULTURAL SCHOOL, MAGNOLIA.

Faculty: H. K. Sanders, B. S., principal (Clemson Agricultural College); D. J. Burleson, L. I., B. S., agronomy, chemistry, and physics (Alabama Polytechnic Institute); H. H. Holtzclaw, B. S. A., M. S., animal husbandry (University of Arkansas); S. M. Samson, Ph. B., farm management (University of Colorado); E. W. Doran, A. M., Ph. D., biology and economic entomology (University of Chicago); E. E. Austin, B. A., mathematics (Ouachita College); R. Turrentine, A. B., B. S., English and history (Henderson College); Loucile Benoit, household economics (Meridian Female College); Ruth Reynolds, assistant.

This school was opened January, 1911. It is pleasantly located 1½ miles north of Magnolia, one of the most delightful home cities of southwest Arkansas.

Four handsome brick buildings have been erected and equipped with all modern conveniences. The main building is three stories high, each floor containing four large classrooms, making twelve in all. In addition to these, there are on the first floor toilet rooms, a large boiler room, and a coal room. On the second floor are the library and the principal's office in addition to the classrooms. On the third floor is a large auditorium having a seating capacity for more than 300 students. There are at present two brick dormitories having a total capacity of only 75 students. This has proved to be inadequate and a new dormitory having a capacity of 128 students will soon be ready for occupancy. Rooms in dormitories are furnished with all necessary articles except bed clothing and towels. The dining hall and kitchen, located at the rear of the main building, is now too small. Board is furnished at actual cost. Barns have been built for the stock on the farm, and cottages prepared for teachers.

The four buildings just mentioned cost $45,800. Magnolia gave a bonus of $50,000 and 400 acres of land to the school. The entire plant is lighted with electricity and an artesian well furnishes an abundant supply of deep water for the waterworks and sewage system which have been installed. The school plant is valued at $125,000.

The soil of the farm is light and sandy with a yellow subsoil. Following are the crops and the number of acres devoted to each: Peanuts 25, corn 40, cotton 15, pea-vine hay 20, pastures 60, orchard 35, rye 15, garden 4, potatoes 3, and woodland 163. There are 20 acres in the campus.

The students do classroom work in the forenoon and part of the afternoon. After the classroom work the boys go to the farm in sections to do work (Pl. IV, fig. 1), for which they receive 10 cents per hour. The total enrollment was 96, with 80 in attendance at the close of the year.

The farm herd contains some of the best Shorthorn cattle that Texas affords, 9 head in all. There are about 40 head of hogs consisting of fine specimens of Duroc Jerseys, Poland Chinas, and Berkshires selected from the best herds in the South. There are 4 large heavy mules and 2 ponies on the farm. The latter will soon be replaced by 2 draft Percheron mares. The farm is well equipped with harrows, grain drill, stalk cutter, heavy turn plows, riding plow, mowing machine, hay press, various hand tools, and 2 spraying machines for orchard work.

Below is given an outline of the course of instruction. The figures indicate the number of weekly recitations in the respective studies throughout the year.

COURSE OF STUDY.

FIRST YEAR.

Arithmetic	5
Grammar	5
Animal husbandry	3
Agronomy	3
Physiology	3
Domestic science (girls)	5
Domestic art (girls)	
Elective	3

SECOND YEAR.

United States history	5
Farm accounts	1
English	5
Horticulture	2
Biology	3
Animal husbandry	3
Dairying	2
Domestic science (girls)	5
Domestic art (girls)	3

THIRD YEAR.

Algebra	5
English	5
Chemistry	3
Agronomy or animal husbandry	3
Zoology	3
Entomology	3

FOURTH YEAR.

General history	3
Geometry	5
Literature	3
Chemistry	3
Physics	3
Geology	3
Bacteriology	3
Agronomy or animal husbandry	3

The last two years of the girls' course is the same as the boys' course, except they take cooking (Pl. IV, fig. 2) and sewing instead of agronomy and animal husbandry.

FOURTH DISTRICT AGRICULTURAL SCHOOL, MONTICELLO.

Faculty: J. L. Spence, A. B., superintendent (University of Mississippi); Frank Horsfall, B. S., principal, agriculture (University of Arkansas); R. S. Goulden, M. E., manual training and mathematics (Iowa State College); Mamie Hassebrock, B. S., domestic economy and mathematics (Kansas Agricultural College); Anna Molloy, B. S., domestic economy and history (Kansas Agricultural College); Irma Brown, B. S., domestic economy and English (I. I. and C. of Mississippi); S. O. Mase, A. B., English (Ohio Northern University); Hettie Haskew, assistant in English; Mrs. Mary Hamon, piano and harmony; Vera Cotner, expression and physical culture.

The Fourth District Agricultural School, with its $100,000 plant, is located in the southern part of Monticello, and occupies an eminence from which one can see vast acres of virgin forests and alluvial fields, and among many other attractions, the beautiful Sunny Lake, the waters of which abound in fish, and afford excellent bathing and boating.

The buildings of the school cost $65,000, and consist of the two dormitories, the main building, the dining hall, one cottage, and some outbuildings. The main building (Pl. V, fig. 1) cost $32,000, and is a 2-story and basement brick building. All inside walls are of brick and 13 inches thick. The building contains 8 recitation rooms, 6 laboratories, study hall, exhibit hall, 2 offices, 1 boiler room, and 1 fuel room. These rooms are all well furnished except the laboratories.

The boys' dormitory is a 2-story brick building and cost $15,000. It is 170 feet long by 36 feet wide. It contains 48 bedrooms and 2 bathrooms. The girls' dormitory is 120 feet long and 36 feet wide, and contains 26 bedrooms and 2 bathrooms. It is furnished throughout.

The dining hall is a 1-story brick building 70 feet long by 30 feet wide. It is partly furnished. The kitchen and laundry is a brick wing of the dining room and is 50 feet long and 20 feet wide. The woodwork on this building was done by the boys.

For the support of this school the State gave $40,000 and the county of Drew gave $40,200. This money was used for buildings and equipment and current expenses of the school until December 31, 1910.

The farm consists of 500 acres of land on a gravelly ridge and some bottom land. The farm is well suited to the needs of the school and

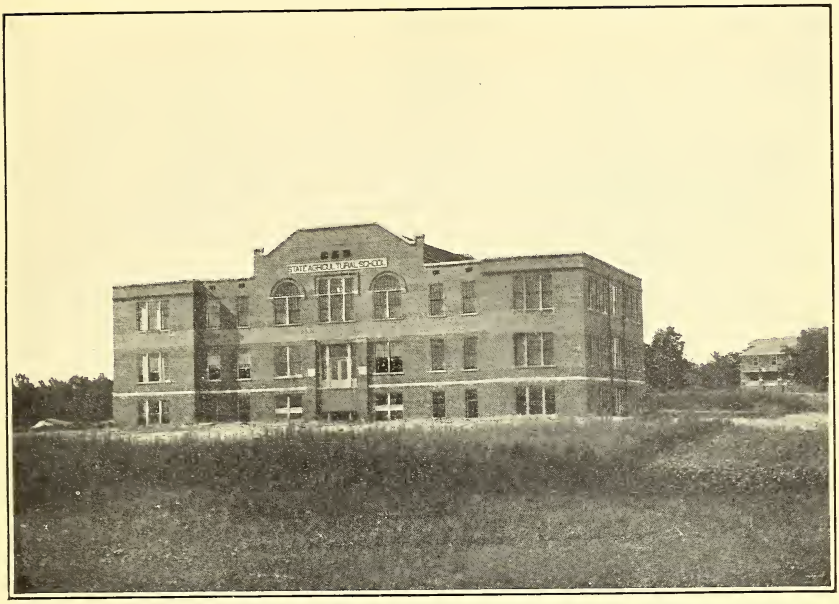


FIG. 1.—MAIN BUILDING, FIRST DISTRICT AGRICULTURAL SCHOOL, JONESBORO, ARK.

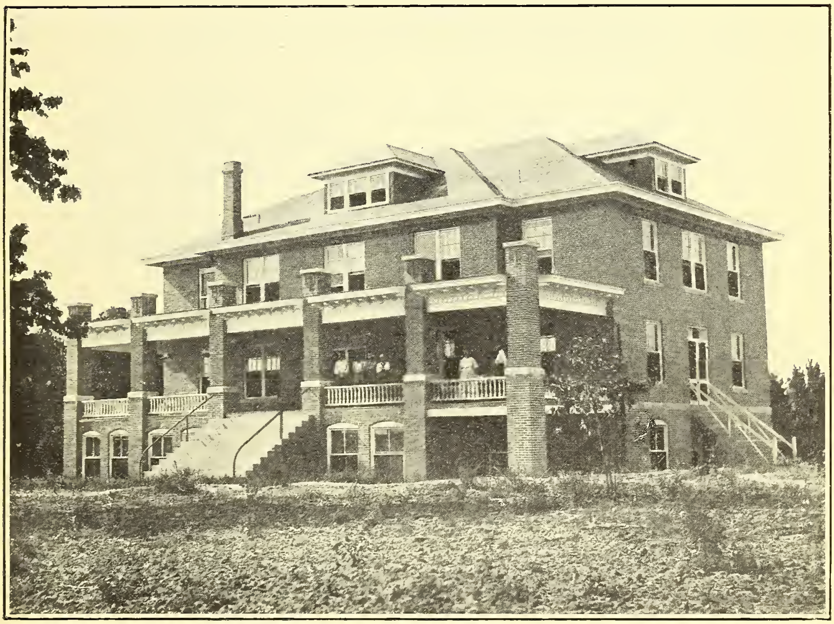
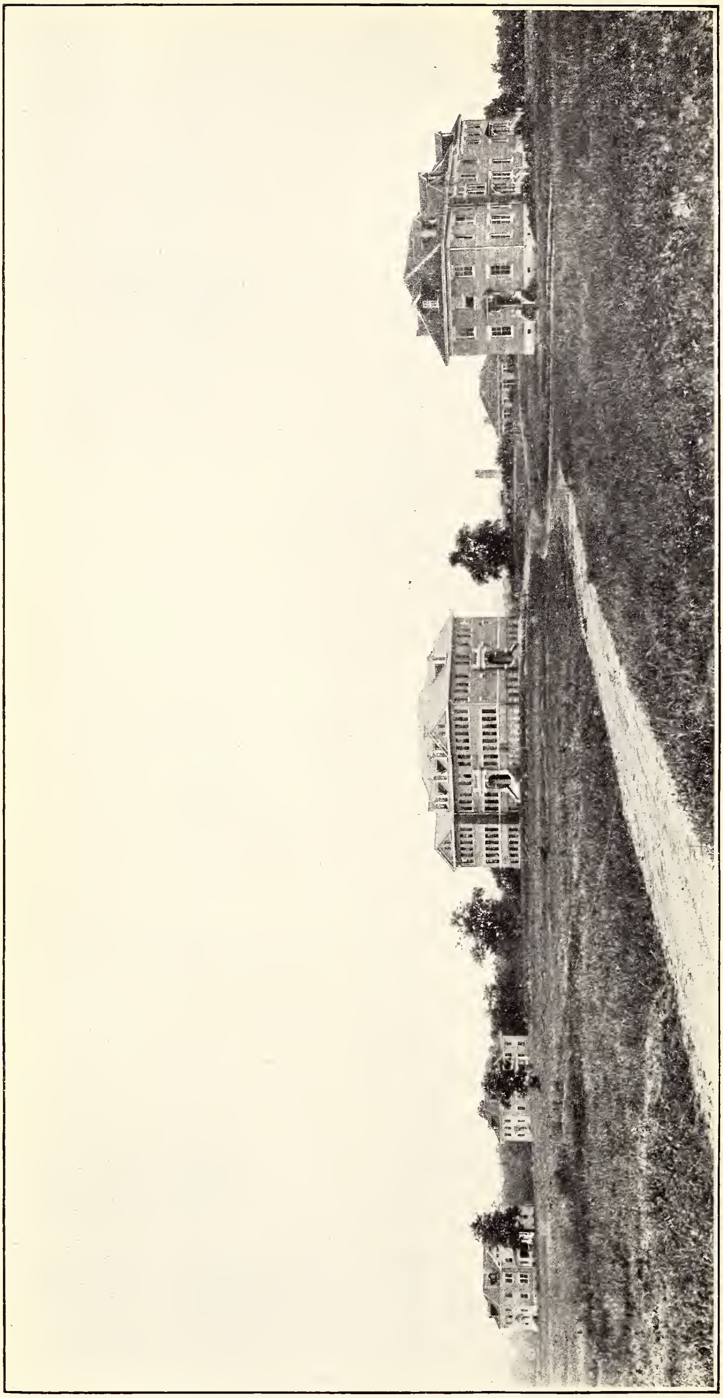


FIG. 2.—GIRLS' DORMITORY, FIRST DISTRICT AGRICULTURAL SCHOOL, JONESBORO, ARK.



MAIN BUILDING AND DORMITORIES, SECOND DISTRICT AGRICULTURAL SCHOOL, RUSSELLVILLE, ARK.

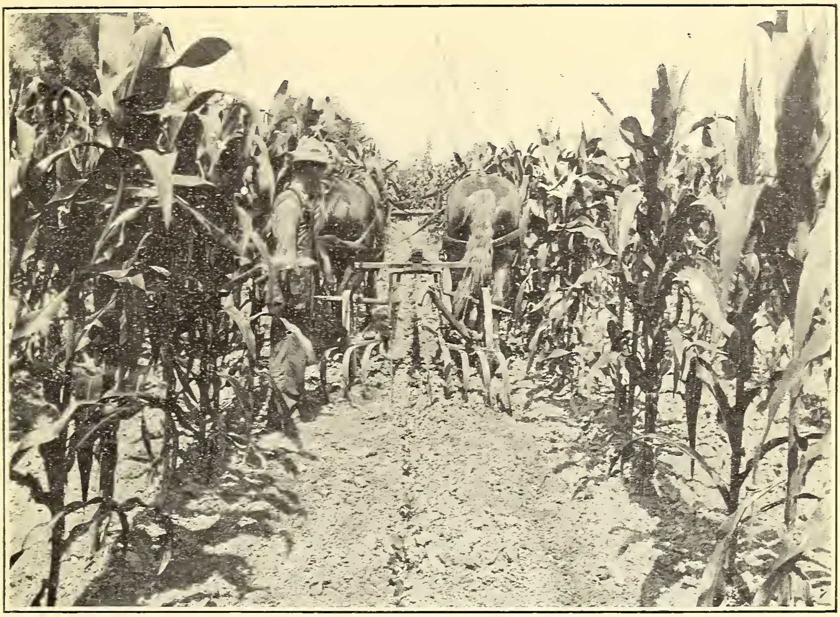


FIG. 1.—CORNFIELD, SIX WEEKS AFTER PLANTING, SECOND DISTRICT AGRICULTURAL SCHOOL, RUSSELLVILLE, ARK.

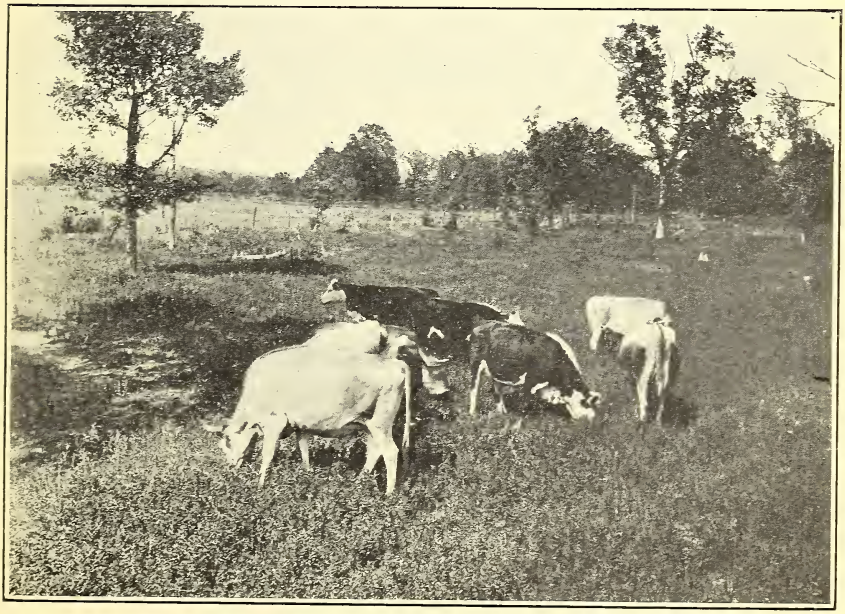


FIG. 2.—PURE-BRED JERSEYS AND HEREFORDS, SECOND DISTRICT AGRICULTURAL SCHOOL, RUSSELLVILLE, ARK.

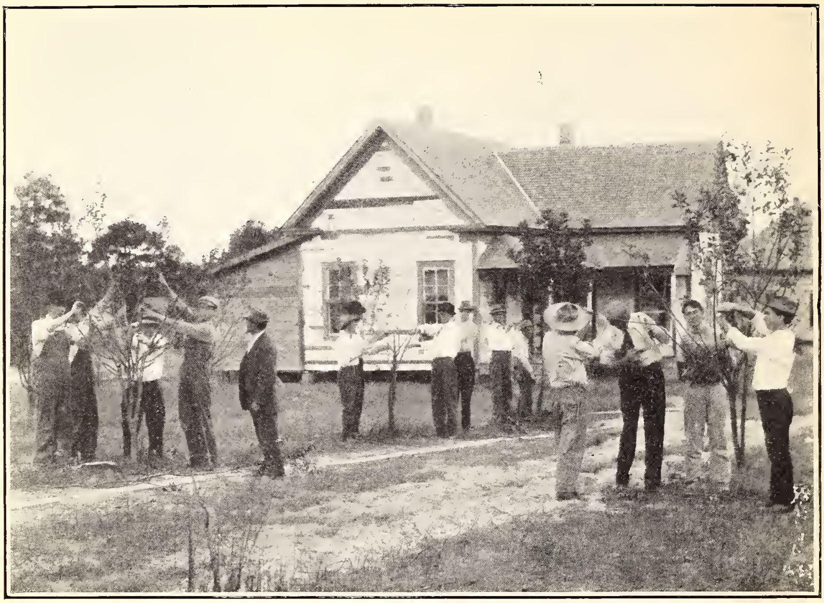


FIG. 1.—CLASS IN HORTICULTURE, THIRD DISTRICT AGRICULTURAL SCHOOL, MAGNOLIA, ARK.

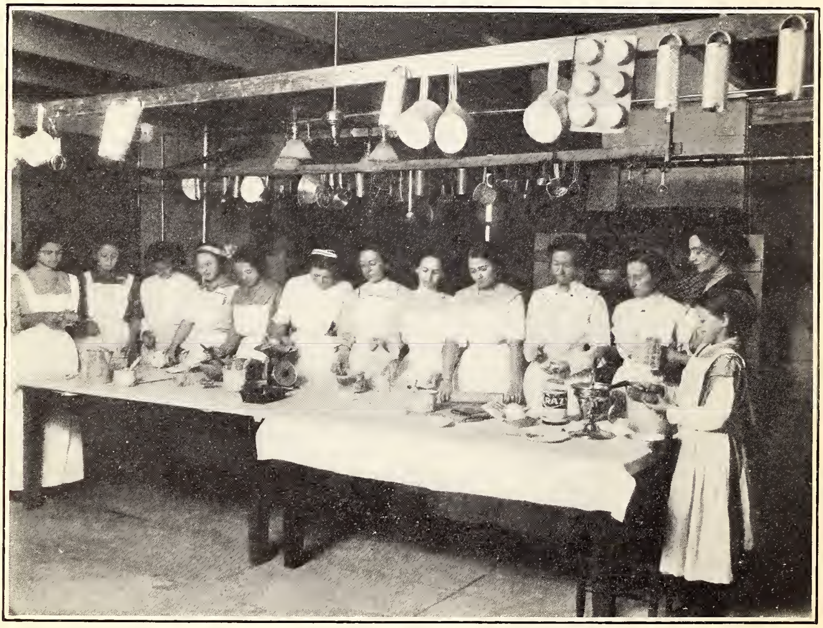


FIG. 2.—HOME ECONOMICS LABORATORY, THIRD DISTRICT AGRICULTURAL SCHOOL, MAGNOLIA, ARK.

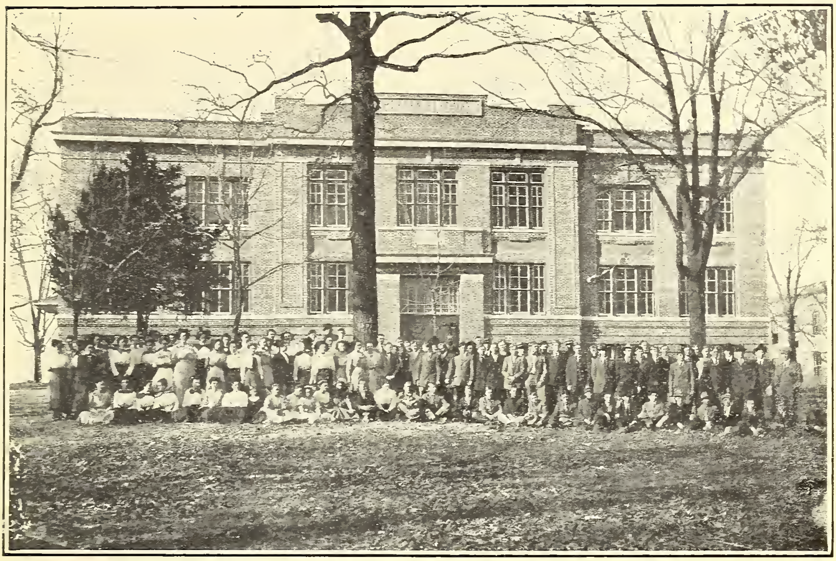


FIG. 1.—MAIN BUILDING, FOURTH DISTRICT AGRICULTURAL SCHOOL, MONTICELLO, ARK.

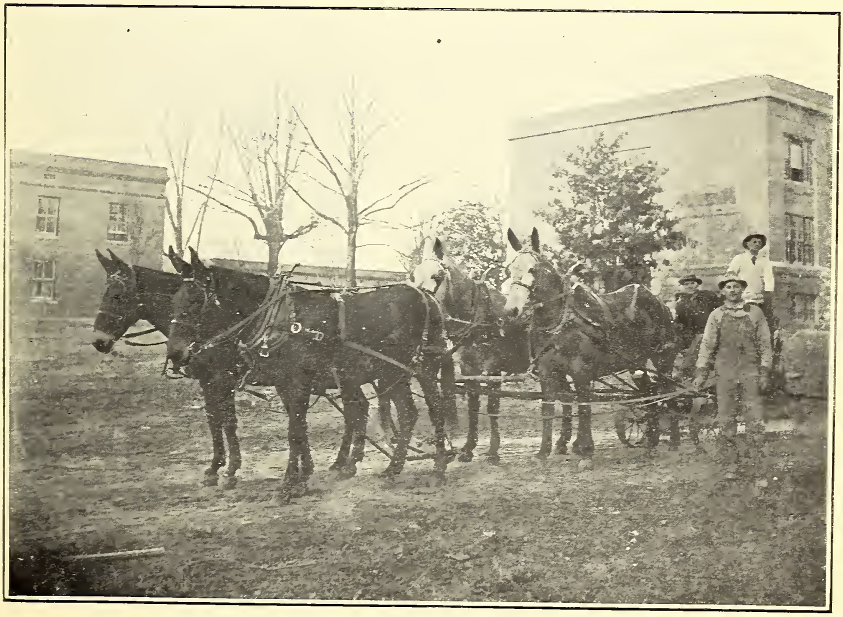


FIG. 2.—ROAD GRADER, FOURTH DISTRICT AGRICULTURAL SCHOOL, MONTICELLO, ARK.

for demonstration work. About 100 acres are taken up with campus, ball grounds, meadow, lake, etc., while 100 acres are devoted to such crops as corn, cotton, truck crops, cowpeas, and soy beans. All the work of the school and farm is done by the students (Pl. V, fig. 2). They are paid for the work they do outside of the laboratory hours, and in this way 23 boys and 1 girl worked all their way through the school year and many boys and girls worked over half of their way. The students, under the direction of the faculty, put in the school water and sewage systems and installed an electric-light plant and wired all the buildings. Besides the large amount of work accomplished in putting the school buildings and farm in running order, each boy was required to carry five studies.

Very little live stock has been bought on account of the lack of funds and feed. One fine mule team and a few cows constitute the live stock on the farm. The farm equipment consists of 1 wagon, 2 sets of harness, 1 grain drill, 2 riding plows, 3 harrows, and other small tools.

Although the school opened on September 14, 1910, and closed May 30, 1911, it did not occupy its present plant until January 4, 1911.

While the school places a premium on literary and industrial work, the student athletic association has been given liberal encouragement. A modern ball ground and race track have been provided, and Sunny Lake, which is a part of the campus, affords excellent boating, bathing, and fishing.

The total enrollment of regular students was 201, with 50 short-course students representing 21 counties.

The following courses are offered:

1. *A 3-year preparatory course.*—The sixth, seventh, and eighth grade work is given those wishing it, with agriculture and home economics added.
2. *A 4-year course in agriculture and home economics.*—This is designed to follow the preceding course, thereby giving students a strong industrial training in agriculture for young men, and in home economics for young ladies.
3. *A special course for farmers.*—This course will provide a practical form of agricultural training for those not having time for a more extended course. Special instruction is given in agronomy, dairy husbandry, animal husbandry, fruit, truck growing, etc.
4. *A short course for farmers and others.*—This is intensely practical and arranged to meet the needs of farmers and their families. It includes two weeks' work in agriculture and home economics.

Course No. 1 for Boys and Girls.

	Periods.
Sixth grade:	
Arithmetic	5
Geography	3
Spelling and writing	2
Practice work	(12)
Grammar	5
United States history	3
Agriculture or domestic science	2
Laboratory	(4)
Seventh grade:	
Arithmetic	4
Geography	3
United States history	3
Spelling and writing	2
Practice work	(12)
Seventh grade—Continued.	
Grammar and composition	4
Arkansas history	2
Physiology	4
Agricultural laboratory	(4)
Eighth grade:	
Arithmetic	5
Grammar and composition	4
Agriculture or domestic science	2
Algebra	5
Physical geography	3
Civics	2
Laboratory	(4)
Practice work	(12)

Course No. 2, Agricultural Course for Boys.

	Periods.
First year:	
Arithmetic	5
Rhetoric and composition	5
Agricultural botany	3 (4)
Breeds of animals	
Vegetable gardening	
Mechanical drawing	(4)
Practice work	(8)
Algebra	4
General history	3
Carpenter shop	(4)
Second year:	
Algebra	5
Chemistry	5 (4)
Soils and fertilizers	5 (4)
Farm crops	
Blacksmithing	(4)
English	5
Practice work	(8)
Third year:	
Geometry	5
Physics	5 (4)
Dairying	3 (4)
Fruit growing	
Third year—Continued.	
Entomology	3 (4)
Pathology	
Animal diseases	
Machinery	(4)
English	5
Practice work	(4)
Fourth year:	
Geometry	5
Supply and demand	3
Markets and marketing	
Forestry	3 (4)
Floriculture	
Surveying and road making	
Farm accounts	
Feeding live stock	3 (4)
Poultry management	
Practice work	(12)
Cotton grading	1
Trigonometry	5

COURSE NO. 2. HOME ECONOMICS FOR GIRLS.

	Periods.
First year:	
Arithmetic	5
Rhetoric and composition	5
Agricultural botany	4 (4)
Social culture	
Vegetable gardening	
Mechanical drawing	(4)
Sewing	(4)
Algebra	4
General history	3
Cooking	(4)
Second year:	
Algebra	5
Chemistry	5
Household art	5 (4)
Home management	
Chemistry of foods	
Cooking	(4)
English	5
Sewing	(4)
Third year:	
Geometry	5
Third year—Continued.	
Physics	5 (4)
Dairying	3 (4)
Fruit growing	
Entomology	3 (4)
Domestic hygiene	
Home nursing	
English	5
Dressmaking	(4)
Fourth year:	
Geometry	5
Supply and demand	3
Markets and marketing	
Forestry	3 (4)
Farm accounts	
History of costumes	3 (4)
Floriculture	
Poultry management	
Millinery	(4)
Trigonometry	5
Dressmaking	(4)

NOTE.—The figures inclosed in parentheses indicate the periods spent in laboratory work.

LEGISLATION.

AN ACT To provide for the establishment and maintenance of public schools of agriculture in the State of Arkansas.

Be it enacted by the General Assembly of the State of Arkansas:

SECTION 1. For the purpose of this act the State of Arkansas is divided into the following districts:

The first district to be composed of the following counties: Baxter, Fulton, Sharp, Randolph, Clay, Greene, Lawrence, Izard, Stone, Independence, Jackson, Craighead, Poinsett, Mississippi, Crittenden, Cross, St. Francis, Woodruff, White, and Cleburne.

The second district shall be composed of the following counties: Marion, Boone, Carroll, Benton, Washington, Madison, Newton, Searcy, Van Buren, Conway, Pope, Johnson, Franklin, Crawford, Sebastian, Logan, Yell, Perry, Scott, and Faulkner.

The third district shall be composed of the following counties: Polk, Montgomery, Garland, Saline, Pulaski, Hot Spring, Pike, Howard, Sevier, Little River, Hempstead, Clark, Nevada, Ouachita, Columbia, Lafayette, and Miller.

The fourth district shall be composed of the following counties: Lonoke, Prairie, Monroe, Lee, Phillips, Arkansas, Jefferson, Grant, Dallas, Cleveland, Lincoln, Desha, Drew, Bradley, Calhoun, Union, Ashley, and Chicot.

SEC. 2. Within each of the foregoing districts there shall be established an industrial school to be known as the State Agricultural School of its respective district and in which shall be taught agriculture, horticulture, and the art of textile manufacturing.

SEC. 3. The governor of the State, with the concurrence of the senate, shall appoint in each of the above-named districts five trustees, who shall be intelligent farmers, said five trustees in each district shall constitute a board of trustees for their respective district, with power to control the management of the schools herein provided for, and make rules and regulations for the management of same, subject to the provisions of this act. Said trustees shall hold office for a term of 10 years or until their successors are appointed; provided the first incumbents shall serve for the following periods: One for 2 years, one for 4 years, one for 6 years, one for 8 years, and one for 10 years;

and thereafter one new member appointed every 2 years; provided further, the governor shall have power to fill all vacancies caused by death, resignation, or otherwise, by appointing a trustee to fill the unexpired term, and he shall also have power to remove any trustee for good cause shown.

Sec. 4. The board of trustees in each district shall have power to locate the agricultural school within such district, and the board shall take into consideration the nature of the soil, healthfulness of location, general desirabilities, and other material inducements offered, such as donation of buildings, lands, or money.

Sec. 5. Said board shall elect one of its members president, one vice president, and one secretary. Said board shall meet upon call of the president, and after the school is located the board meetings shall be held at the school. The members of the board shall be allowed $2 per day and necessary expenses while attending meetings of the board, and a majority shall constitute a quorum to do business. All expenses shall be certified by the president or vice president, attested by the secretary, to the State auditor, and paid out of the appropriation herein provided.

Sec. 6. The course of study shall be provided by the trustees of each school and shall consist of at least practical experiment, treatises or lectures on agriculture and horticulture, and as soon as practicable and not later than one year succeeding the opening of each school there shall be established in connection therewith a textile school in which shall be taught the art of cotton manufacturing, and other textile manufacturing, should the board of trustees deem it expedient.

Sec. 7. The faculty of each school shall consist of a principal, who shall be a graduate of some reputable school of agriculture; one instructor in stock raising and dairying; a competent textile instructor and assistants as may be necessary. The trustees may combine the duties of any of the above when practicable.

Sec. 8. That after the first buildings are erected and are ready for temporary use all work in, on and about said school, or on the farm, or on or in the barns connected with such schools, whether it be farming, building, care of stock, or whatever kind of work, shall be performed by students of said school under such regulations for the proper divisions and alterations in such work as may be provided by the trustees.

Sec. 9. That the tuition in said school shall be free, and the trustees may limit the number of students from time to time, according to the capacity and means of the institution, and shall make such rules of admission as to equalize as nearly as practicable the privileges of the school among the counties according to population, and the trustees may defer the actual opening of the school until such time as may be necessary to prepare reasonable facilities and equipment for the beginning of same; but it is made the duty of the trustees to open said school even though it may have to be done on a limited scale as early as practicable and afterwards extend its operations as circumstances may permit; and the trustees are authorized to rent, to the best advantage from time to time, any portion of the property of such schools not required for the immediate use of said school. No student under the age of 15 years shall be admitted as a student at such schools.

Sec. 10. There is hereby appropriated out of any funds in the State treasury not otherwise appropriated $160,000, or so much thereof as may be necessary, $40,000 of which shall be for the benefit of each of the aforesaid districts for the purpose of this act. All funds realized from the operation of said schools shall be paid into the State treasury to the credit of the general revenue fund.

Sec. 11. The several agricultural schools provided for by this act shall cooperate by reporting to each the results of their several experiments and shall mutually agree upon the publication of such bulletins for free distributions as they may deem to the best interests of those engaged in agricultural pursuits.

Sec. 12. That all laws and parts of laws in conflict with this act are hereby repealed, and this act take effect and be in force from and after its passage.

Approved April 1, 1909.

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